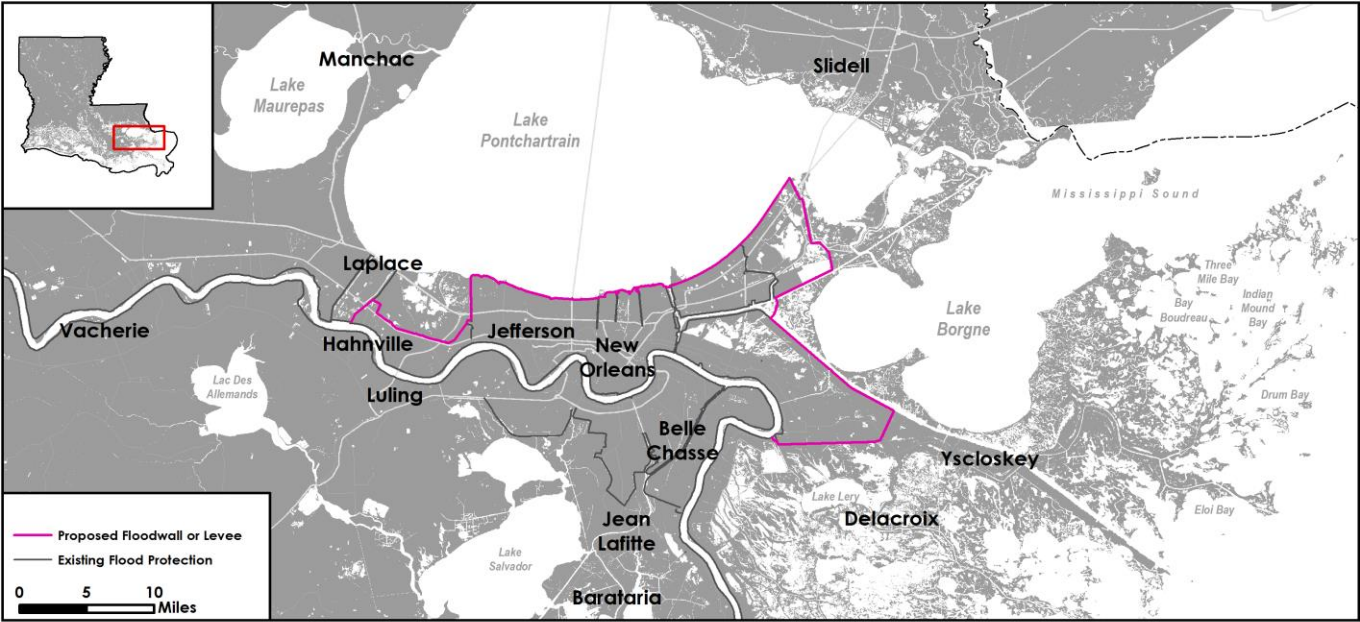


Greater New Orleans High Level Structural Protection

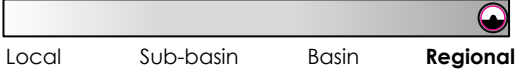
Project ID: 001.HP.04



Description

Improvements of existing Hurricane and Storm Damage Risk Reduction System levees surrounding the East Bank of Greater New Orleans to elevations between 19 and 35 feet NAVD88. Project features approximately 202,000 feet of earthen levee and approximately 242,100 feet of T-wall.

Scale of Influence



Project Location

Orleans Parish; St. Bernard Parish; Jefferson Parish; St. Charles Parish; Plaquemines Parish

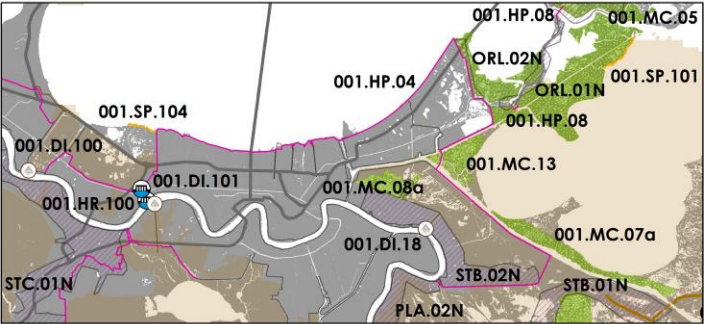
Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 6 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	\$278,100,000
Construction	\$1,924,900,000
Operations & Maintenance	\$19,700,000
Total	\$2,222,700,000

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)	593,700
Percent of Population who are Low-to-Moderate Income American Community Survey (2006 - 2010)	43%
Number of Severe Repetitive Loss Properties Governor's Office of Homeland Security (2015)	9,600

Greater New Orleans High Level Structural Protection

Project ID: 001.HP.04



Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	FWOA	FWP	Difference
0	\$917 M	-	-
25	\$2,299 M	\$2,055 M	\$243 M
50	\$5,829 M	\$5,052 M	\$777 M

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	Protected	Total
Airport Facility	-	-
Gas Processing	-	3
Government/Military	-	3
Electric Power Substation	2	57
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	-
Manufacturing/Chemical	-	14
Electric Power Plant	1	27
Port	-	3
Petroleum Pump Station	-	-
Refinery	-	8
Water and Sewer	-	16
Strategic Petroleum Reserve	-	-
Total	3	131

Table 3: Economic Damage by Return Period at Year 50

Risk Region	50 Year		100 Year		500 Year	
	FWOA	FWP	FWOA	FWP	FWOA	FWP
Jefferson - Kenner/Metairie	\$1,885 M	\$1,508 M	\$10,376 M	\$2,051 M	\$145,548 M	\$105,674 M
Livingston	\$340 M	\$340 M	\$451 M	\$454 M	\$507 M	\$507 M
Orleans - Lake Catherine	\$340 M	\$340 M	\$342 M	\$342 M	\$351 M	\$351 M
Orleans - New Orleans	\$9,913 M	\$1,765 M	\$23,194 M	\$10,739 M	\$78,145 M	\$64,680 M
Orleans - Rigolets	\$129 M	\$130 M	\$130 M	\$130 M	\$130 M	\$130 M
St. Bernard	\$283 M	\$279 M	\$748 M	\$737 M	\$13,580 M	\$12,237 M
St. Charles - Destrehan	\$21 M	\$21 M	\$21 M	\$21 M	\$45 M	\$31 M
St. Charles - Montz	\$48 M	\$48 M	\$101 M	\$101 M	\$196 M	\$201 M
St. James - Convent	< \$1 M	< \$1 M	< \$1 M	< \$1 M	< \$1 M	< \$1 M
St. John the Baptist - Garyville	\$133 M	\$134 M	\$158 M	\$158 M	\$209 M	\$209 M
St. John the Baptist - Laplace/Reserve	\$16,468 M	\$16,506 M	\$19,303 M	\$19,240 M	\$24,670 M	\$24,591 M
St. Tammany	\$26,828 M	\$26,740 M	\$40,135 M	\$40,068 M	\$53,582 M	\$53,570 M
St. Tammany - Slidell	\$18,532 M	\$18,486 M	\$21,568 M	\$21,488 M	\$25,013 M	\$24,955 M
Total	\$74,921 M	\$66,297 M	\$116,527 M	\$95,529 M	\$341,976 M	\$287,135 M